ABSTRACT

A digital image processing method is taught for detecting human irises in a digital image. The method comprises the steps measuring the red intensity of the pixels in the image, determining the probability that each pixel is

5 an iris based upon the red intensity of the pixel, determining the probability that each pixel is not an iris based upon the red intensity of the pixel; and determining whether the pixel is an iris by analyzing the relationship between the probability that the pixel is an iris and the probability that the pixel is not an iris. In one embodiment of the present invention, the determination as to whether a pixel is an

10 iris pixel is then made based upon the application of a Bayes model to the probability that the pixel is not an iris, the probability of the occurrence of an iris in the identified region and probability of the occurrence of a non-iris pixel in the identified region. In another embodiment of the present invention, the method comprises the steps of finding an oval shaped skin color region, detecting iris

15 color pixels in the oval shaped skin color region, detecting iris color pixels in the oval shaped region using a Bayes model and locating eye positions based upon the detected iris color pixels.

A computer program product for performing these methods is also taught.

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